

REMARKS/ARGUMENTS

After the foregoing Amendment, Claims 1 – 8 are currently pending in this application. Claim 1 has been amended. Applicants submit that no new matter has been introduced into the application by these amendments.

Claim Rejections - 35 USC §102 & §103

Claims 1 – 3 and 5 - 8 were rejected under §102(b) as anticipated by, or in the alternative, under §103(a) as obvious over U.S. Patent No. 6,206,315 to Wier.

Claim 4 was rejected under §103(a) as obvious over Wier.

Claim 1 has been amended to recite a torsion bar for application in belt winders for safety belts, including a bar having end sections; and drive and/or locking elements arranged on the end sections for positive connection to respective devices. Different torques, in relation to a deformation strength of the bar, at constant sizes of the drive and locking elements are achieved by exchanging the bar with another bar having a different diameter. The bar being produced in one piece with the drive and/or locking elements (2, 3) in a cold forming impact extrusion process from a non-ferrous metal.

Weir does not show the bar being produced in one piece with the drive and/or locking elements (2, 3). While it is appreciated that Weir includes locking toothings 6, 6', 6'', the toothings are not in one piece with the bar 10, 12 as claimed.

Weir also fails to show or suggest a torsion bar for application in belt winders for safety belts where different torques, in relation to deformation of the bar, at constant sizes of the drive and/or locking elements are achieved by exchanging the bar with another bar having a different diameter. Weir states in column 3, lines 36 – 51:

Here, both torsion bars 10, 12 are formed with splined ends whereby a form-locking engagement is achieved. The second torsion bar 12 is formed with a small end on the one side and a larger end at the other side so that it can be inserted into the first torsion bar 10 whereby simultaneously a form-locking engagement with the first torsion bar is achieved.

The first torsion bar formed from aluminum or an aluminum alloy is provided with a local neck E which when the torsion bar is twisted soon initiates that the torsion bar breaks whereby a degressive characteristic of the force limiter is achieved. The second torsion bar which may be made from aluminum, an aluminum alloy or from steel can be provided as a hollow or as a solid part depending on the desired characteristic. (Emphasis added.)

Therefore, in order to change the characteristics of the torsion bar of Weir, one must vary the second torsion bar 12 that is inserted into the first torsion bar 10.

The second bar 12 is inserted into the first bar 10 and is either welded into place or fits by way of a form-locking engagement. The variations described are the materials used to form the second torsion and making the bar hollow or solid. There is no mention whatsoever of varying the diameter to obtain different torque characteristics as claimed. By providing torsion bars of varying diameters, the torque can be varied without necessitating changing the drive and or locking elements.

Regarding claim 4, the examiner states that it would have required no more than routine experimentation to determine the acceptable level of purity of aluminum to obtain the desired workability and energy absorbing capability. Applicants traverse the rejection. The development of the specific compound claimed for use in cold forming was the result of extensive research, trial and error. The properties of the aluminum varied in an unpredictable manner due to interactions between the individual components when the amounts were changed. Further, the extensive trial and error was required to find a composition having the optimum plasticity for producing the torsion bar as is claimed.

Based on the amendments and arguments presented above, withdrawal of the § 102 and §103 rejections of claim 1 – 8 is respectfully requested.

Applicant: Oesterle et al.
Application No.: 10/574,735

Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claims 1 - 8, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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